

AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

LISTING OF CLAIMS:

1. (Currently Amended) A transceiver for use within a multi-tier system bus configuration comprising:

means for independently receiving instructions via the a system bus from one or more devices connected to the system bus;

means for independently transmitting instructions via the system bus to one or more devices connected to the system bus;

means for buffering instructions received via the system bus to provide a separate receive buffering of control actions from direct memory access (DMA) operations for forward to a local processor bus; and

means for buffering instructions transmitted via the system local processor bus to provide a separate transmit buffering of control actions from DMA operations to be transmitted to the system bus;

wherein said means for independently receiving instructions is configured to discriminate between different types of input;

wherein said means for independently transmitting instructions is configured to interleave said instructions; and

wherein access to the multi-tier system bus is arbitrated such that control actions preempt DMA operations.

2. (Previously Presented) The transceiver of claim 1, wherein said means for independently transmitting instructions is configured to interleave the instructions based upon instruction type.

3. (Previously Presented) The transceiver of claim 2, wherein said instructions are contained within packets and said means for independently transmitting instructions is configured to interleave the instructions based upon packet type.

4. (Original) The transceiver of claim 3, wherein said packets comprise direct memory access (DMA) and control action (CA) packet types.

5. (Previously Presented) The transceiver of claim 1, wherein said means for independently receiving instructions is configured to discriminate between different types of input based upon received instruction type.

6. (Previously Presented) The transceiver of claim 5, wherein said input is contained within packets and said means for independently receiving instructions is configured to discriminate between different types of input based upon packet type.

7. (Original) The transceiver of claim 6, wherein said packets comprise direct memory access (DMA) packets and Control Action (CA) packet types.

8. (Previously Presented) The transceiver of claim 1, wherein said means for independently receiving instructions is configured to provide specialized control functions.

9. (Original) The transceiver of claim 8, wherein said specialized control functions include: a reset function, a timer function, and a broadcast function.